



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/034,383

12/27/2001

Christopher Pasqualino

13311US02

8696

23446 7590 01/13/2009  
MCANDREWS HELD & MALLOY, LTD  
500 WEST MADISON STREET  
SUITE 3400  
CHICAGO, IL 60661

EXAMINER

YENKE, BRIAN P

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

01/13/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/034,383 | <b>Applicant(s)</b><br>PASQUALINO ET AL. |  |
|                              | <b>Examiner</b><br>BRIAN P. YENKE    | <b>Art Unit</b><br>2622                  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on RCE/Amendment (01/05/09).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-11,22,24,26,27 and 29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) all the above is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/05/09 has been entered.

***Response to Arguments***

2. It is noted the applicant has broadened the claims in one respect, by removing the "concatenating audio data onto...at least one color component" and placing such limitation into dependent claims 5 and 26.

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Regarding the concatenating of audio data and KSR remarks, the examiner provides the following response.

The examiners also notes that the applicants specification (para 11) states that at least one data bit, may be a CRC bit, audio data, auxiliary data, status information or some combination thereof may be concatenated onto at least one component.

The applicant's specification supports the examiner's rationale that the linking of data onto a video component (which may be a color component) can be performed, whether the data bit is CRC, synchronization, audio etc...

The examiner's position that since it's been evidenced that a data bit may be concatenated onto a video color component, this data bit may be any type of data which is conventionally transmitted with video.

The applicant also states that case is distinguishable from KSR in that the references applied do not explicitly teach every limitation.

In their decision the Supreme Court stated "To determine whether there was an apparent reason to combine known elements in a way a patent claims, it will often be necessary to look to interrelated teachings of multiple patents; to the effects of demands known to the design community or present in the marketplace; and to the background knowledge possessed by a person having ordinary skill in the art. *To facilitate review, this analysis should be made explicit. But it need not seek out precise teachings directed to the challenged claim's specific subject matter, for a court can consider the inferences and creative steps a person of ordinary skill in the art would employ.*"

"The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicitly content of issued patents. The diversity of inventive pursuits and of modern technology counsels against limiting the analysis in this way. In many fields it may be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends. Granting patent protection to advances that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility. "

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3a. Claims 1, 2, 22 and 27 are rejected under 35 U.S.C. 103(a) as being obvious over 1988 IBM Technical Disclosure #NN8812461 in view of Copeland et al., US 6,304,196, in view of MacInnis et al., US 5,914,725,

The IBM Technical disclosure describes an interface for interfacing a controller/pc system and its CRT display. As described the interface includes circuitry for "encoding" video for transmission between the controller/pc system and its CRT display, wherein the interface includes:

1) A multiplexer for concatenating at least one data (e.g. that which represents horizontal sync, vertical sync, and/or the serial data channel signal/command data) the red, green, blue, and

2) A block code arrangement for balancing the entire multiplexed data stream, via the utilization only "balanced" codes, thereby eliminating low frequencies from the spectrum" while permitting 'AC coupling'.

Although, the concept of adding additional bits to an existing sequence/component in order to proper DC balance it was known to add additional bits to ensure proper DC balancing of the encoded signal for proper AC coupling the examiner nonetheless incorporates Copeland (see background/prior art discussion).

Therefore, it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to modify the IBM disclosure which encodes video for transmission and permits AC coupling to add additional bits as done conventionally (Copeland discussion on Prior Art) for the advantages as noted above.

Regarding the splitting a pixel into a plurality of color components, is not disclosed by the combination of IBM/Copeland however, such representation/splitting of pixels is conventional practice to represent a pixel by the 3 basic color components (RGB), although this is conventional in the art, the examiner incorporates MacInnis et al., US 5,914,725, (col 7, line 14-24). Since IBM discloses the use of such RGB components, and that a source may be from a composite signal, this would require receiving/registering, then splitting in order to access the color components.

In considering claim 27,

The IBM Technical disclosure describes an interface for interfacing a controller/pc system and its CRT display as was set forth above with respect to the limitations of claim 22.

Claim 27 differs from the system described in the technical disclosure only in that said claims specify said concatenated data as being "status" data/information.

The examiner maintains that it would have been obvious to use the "data channel" of the interface described in the IBM disclosure to carry any kind of auxiliary data that was conventionally associated with transmitted video data (i.e. be it sound/audio or status information).

3b. Claims 3, 7-11 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over 1988 IBM Technical Disclosure #NN8812461 in view of Copeland et al., US 6,304,196 and in view of MacInnis et al., US 5,914,725,

The IBM Technical disclosure describes an interface for interfacing a controller/pc system and its CRT display as was set forth above with respect the limitations of claim 1.

Claims 3 and 7-11 differ from the system described in the technical disclosure only in that said claims recite steps for correcting the video signal for erroneous pixels caused by transmission errors via various forms of pixel replacement (i.e. via replacement with a previously received correct value or a value obtained by the interpolation/averaging of surrounding correct pixel values);

Although it is conventional to have added overhead bits/data (e.g. such as CRC codes and/or hamming bits) to transmitted video data to detect and correct erroneous transmission errors; interpolation pixel values caused by wherein substitution and represent notoriously well known ways of generating replacement pixel values.

Copeland (col 4, line 1-20) discloses the use of CRC/checksum bits, therefore it would have been obvious to one of ordinary skill in the art to have modified the interface described in the IBM technical disclosure with such conventional overhead data to allow erroneous pixels to be replace using well known pixel replacement techniques performance immunity.

3c. Claims 5 and 26 are rejected under 35 U.S.C. 103(a) as being obvious over 1988 IBM Technical Disclosure #NN8812461 in view of Copeland et al., US 6,304,196, in view of MacInnis et al., US 5,914,725 in view of XP-002202474.

In considering claims 5 and 26,

The combination of IBM/Copeland/MacInnis does not disclose the audio onto color components as claimed.

Regarding the newly amended concatenating audio data onto said at least one color component. As stated in the previous rejection IBM describes an interface which includes circuitry for "encoding" video for transmission between the controller/pc system and its CRT display. Thus although, IBM/Copeland does not explicitly recite "audio", the examiners position is that video/audio are conventionally transmitted/received together for display/listening.

The examiner will rely upon applicant's submitted XP-002202474, which evidences the concept of linking/concatenating the audio with video in a DVI link system.

Therefore it would have been obvious to one of ordinary skill in the art to modify IBM/Copeland which discloses a interfacing/system method between a controller/pc system and a CRT display by linking

Art Unit: 2622

the audio and video data (color component) together as done by XP-002202474 in order to provide the consumer the conventional ability to view and listen to desired programs.

3d. Claim 29 is rejected under 35 U.S.C. 103(a) as being obvious over 1988 IBM Technical Disclosure #NN8812461 in view of Copeland et al., US 6,304,196, in view of MacInnis et al., US 5,914,725 in view of XP-002202474 and Kim, US 6,954,491

Regarding the new amended "...during the blanking interval", although the above cited combination does not explicitly recite this feature, the examiner will evidence the concept of examining data bits to detect a blanking interval, as evidenced by cites Van Dem Hombergh et al., US 5,119,200 (col 6, line 47-67). T

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination above, which discloses encoding video as stated above, by detecting when such blanking intervals occurs, this feature of reception/decoding is required to identify when data or non-data/blanking portions are being received.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (571)272-7359. The examiner's work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, David L. Ometz, can be reached at (571)272-7593.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231



**or faxed to:**

**(571)-273-8300**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

General information about patents, trademarks, products and services offered by the United States Patent and Trademark Office (USPTO), and other related information is available by contacting the USPTO's General Information Services Division at:

800-PTO-9199 or 703-308-HELP

(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and submit information and applications. The tools currently available in the Patent EBC are Patent Application Information Retrieval (PAIR) and the Electronic Filing System (EFS). PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in

Art Unit: 2622

electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.

/BRIAN P. YENKE/  
Primary Examiner, Art Unit 2622

B.P.Y  
12 Jan 09